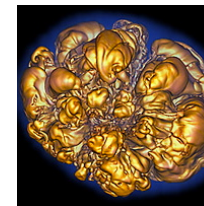
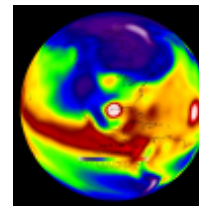
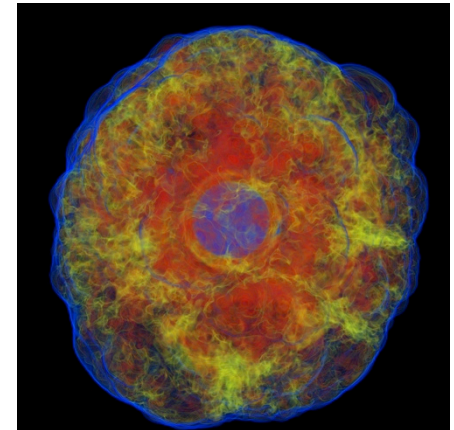
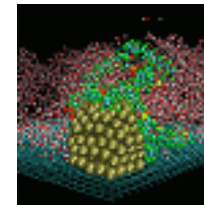
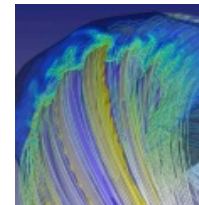
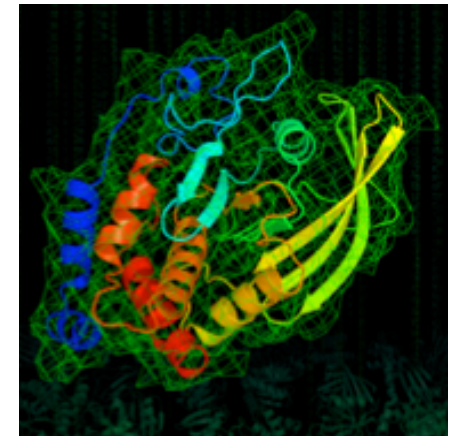
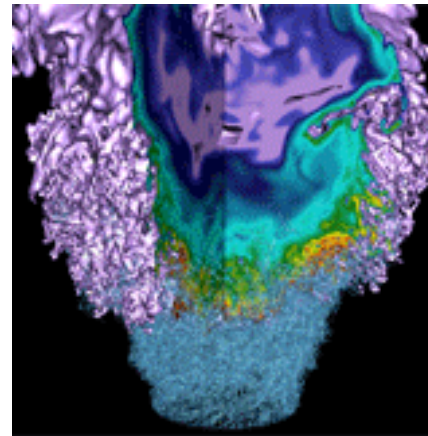


Computational Systems Group Update (CSG)



Jay Srinivasan
NERSC Systems Group

NUG 2014
Feb 6, 2014

What CSG Does-



- **Manage the systems that run your jobs:**
 - The Large MPP systems (Hopper & Edison)
 - The Linux Clusters (Carver, Genepool, Mendel, PDSF)
 - Testbeds (Dirac, Jesup, Intel SB/MIC)
- **Help improve the user experience (batch system, login environment, system performance)**
- **Deploy and maintain storage (local, NERSC-Global) on compute platforms**
- **Participate on System procurements (NERSC-8 ...)**

Staff



James Botts



Scott Burrow



Tina Butler



Nick Cardo



Tina Declerck



Open Position David Paul



Larry Pezzaglia



Iwona Sakrejda



Cary Whitney

A busy and productive year.

- **Edison**
 - Deployment, Integration into NERSC environment
- **Hopper**
 - O/S upgrades, Serial queue implementation, Batch system upgrades, system stability improvements
- **Carver**
 - Batch system upgrades, system stability improvements
- **PDSF**
 - Expanded compute pool and storage; batch system upgrade (UGE)
- **Genepool**
 - Debian-6 upgrade; projectb access, expanded compute pool, interactive nodes

- **Mendel (IB cluster) improvements**
 - The “one physical cluster, multiple virtual clusters” model is working well
 - I/B stack upgrade improved system performance
 - Efficiencies gained in system management, provisioning
- **Testbeds**
 - System standardization and O/S upgrades on Jesup
 - Deployment of Intel MIC cluster (Babbage)
 - Upgrade of GPU cluster Dirac, K-20, K-40 availability

- **Other contributions-**

- Staff participation in conferences, user groups, etc.
- Office holders in Cray User Group (CUG), Large systems group (Xtreme)
- Hosted CUG 2013
- Participation in IBM SPXXL, HEPiX, MoabCon, SC13
- Drive and participate in requirements gathering for system vendors to critique and improve products- benefiting the entire HPC community

Promises to be just as busy and interesting

- **Edison**
 - In production, lots of activities around system configuration
- **Hopper**
 - O/S upgrades (CLE-4.2), batch system upgrades, system performance monitoring improvements
- **Carver**
 - O/S upgrades (SL-6.x), batch system improvements
- **PDSF/Genepool/Mendel**
 - System H/W enhancements, performance improvements

- **Testbeds**

- Upgrades to Babbage (Intel MIC), Dirac
- Reconfiguration of Jesup to support Data-Intensive workloads

- **Other Activities**

- Participation in user groups and conferences (Lustre User Group, CUG, MoabCon)
- Helping coordinate requirements gathering for vendor feedback (Xtreme, SPXXL)
- Continuing as office holders in CUG, XTreme



Discussion

NUGEX Feedback